

CLAIMS

1. Apparatus for operating one or more electronic devices requiring a given current, comprising a regulator device providing voltage output, and a feedback loop having a reference device connected to the voltage output and requiring the same current as the electronic devices, a measuring and conversion device operable to measure the current through the reference device and convert it to a voltage value and return it to the regulator device, wherein the regulator device is operable to adjust the output voltage in response to the voltage value until the measured current is equal to the given current required.
- 15 2. Apparatus as claimed in claim 1, wherein the measurement and conversion device comprises a resistor and a current monitor.
- 20 3. Apparatus as claimed in claim 1 or claim 2, wherein the electronic devices comprises light emitting diodes mounted on a conductive strip having a plurality of conductive elements.
- 25 4. Apparatus as claimed in any preceding claim, wherein the electronic devices are parallel connected and polarity sensitive, and the regulator is connected to a three-phase bridge and a micro controller operable to control the sequence in which the LEDs on the conductive strip are operated.
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5. Apparatus as claimed in any of the preceding claim,
wherein the regulator device comprises a steady state DC
device.

5 6. Apparatus for emitting electromagnetic radiation,
comprising a plurality of electronic devices operable to
emit electromagnetic radiation when provided with a given
current mounted on a conductive strip and connected to
apparatus as claimed in any claims 1 to 5.

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7. A method for operating one or more electronic
devices requiring a given current comprising the steps of
providing a voltage output, supplying the voltage output
to a reference device requiring the same current as the
15 electronic devices measuring the current in the
reference device, converting the measured current to a
voltage value, and adjusting the voltage output in
response to the voltage value until the measured current
in the reference device is equal to the given current
20 required by the electronic devices.

8. A method as claimed in claim 7, further comprising
the step of initially providing a voltage output
sufficient to provide a current lower than the given
25 current and gradually increasing the voltage output until
the measured current in the reference device is equal to
the given current.

9. Apparatus for operating one or more electronic
30 devices requiring a given current substantially as
hereinbefore described and with reference to the
accompanying drawing.

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10. Apparatus for producing electromagnetic radiation substantially as hereinbefore described and with reference to the accompanying drawing.

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11. A method for operating electronic devices requiring given current as substantially hereinbefore described and with reference to the accompanying drawing.